IN THE CLAIMS

1. (Previously presented) A method of forming an isolation trench including a nitride liner in a semiconductor substrate, comprising:

etching the substrate to form a trench therein;

forming a conformal material layer on sidewall and bottom of the trench, wherein the conformal material layer comprises a material selected from the group consisting of high temperature oxide (HTO), aluminum trioxide (Al_2O_3), and tantalum pentaoxide (Ta_2O_5);

growing a thermal oxide layer between the conformal material layer and the substrate;

forming the nitride liner on the material layer; and

filling the trench with a trench isolation material.

2. (Cancelled)

3. (Previously presented) The method as claimed in claim 1, wherein the conformal material layer is formed to a thickness of 50Å-400Å, and the thermal oxide layer is formed to a thickness of 20Å-150Å.

4. (Original) The method as claimed in claim 1, wherein the trench isolation material is made of high-density plasma (HDP) oxide or borophosphosilicate glass (BPSG) to a thickness of 3000Å-10000Å.

5. (Previously presented) A method of forming an isolation trench including a nitride liner in a semiconductor substrate, comprising:

etching the substrate to form a trench therein;

forming a thermal oxide layer on sidewalls and bottom of the trench;

forming a conformal material layer on the thermal oxide layer, wherein the material layer comprises a material selected from the group consisting of high temperature oxide (HTO), aluminum trioxide (Al_2O_3), and tantalum pentaoxide (Ta_2O_5);

forming the nitride liner on the conformal material layer; and

forming a trench isolation material on the nitride liner to fill the trench.

6. (Cancelled)

7. (Previously presented) The method as claimed in claim 5, wherein the conformal material layer is formed to a thickness of 50Å-400Å, and the thermal oxide layer is formed to a thickness of 20Å-150Å.

8. (Cancelled)

9. (Cancelled)

10. (Previously presented) The method of claim 1, wherein the conformal material layer is formed before growing the thermal oxide layer.

11. (Previously presented) The method of claim 1, wherein the HTO is formed at a temperature of 800°C.

12. (Previously presented) The method of claim 5, wherein the conformal material layer is formed after growing the thermal oxide layer.

13. (Previously presented) The method of claim 5, wherein the HTO is formed at a temperature of 800°C.